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ORIGINAL ARTICLES

A REVIEW OF RECENT SCARLET FEVER LITERATURE*

By L. J. SMITH, M.D.

SUPERINTENDENT OF HEALTH
CITY OF WARWICK

A marked degree of uncertainty exists in the minds of those who are responsible for the recent literature on several aspects of Scarlet Fever. These uncertainties particularly exist as to the etiology, the prophylaxis, the specific treatments, the criteria for release and the cause of marked change in the virulence of the disease.

We shall discuss these controversial aspects in the order named:

Etiology

It is generally accepted that some strain of the Hemolytic Streptococcus is the offending organism, but laboratory methods for the isolation of this particular strain have not yet been perfected. At least the methods have not been confirmed and accepted by a majority of the investigators. Since the announcement by the Doctors Dick that they had isolated the specific organism responsible for Scarlet Fever the research workers and clinicians have been constantly at work in an effort to confirm or reject the findings of the Dicks. These efforts have left us in a state of uncertainty and some confusion as to the etiology but also as to the prophylaxis, treatment and criteria for release of quarantine.

Prophylaxis

The results of the findings by Doctors Dick led them to the conclusion that Scarlet Fever could be controlled on the same basis as Diphtheria is controlled. Hence they produced a skin test similar to the Schick Test. Then a serum to produce permanent immunity and finally a serum for the treatment of the disease. These discoveries were received by the public and many of the medical profession with great enthusiasm, but unfortun-

nately not all their claims proved to be true. Many practical obstacles were met with, some of which have not yet been overcome. Experience and observation have shown the Dick Skin Test to be fairly accurate, but the serum reactions, following efforts to immunize individuals and the treatment of cases, have often been worse than the disease itself. For this reason immunization against Scarlet Fever has been limited in its scope to isolated groups in institutions with varying results reported. In fact, the scope of this work has been so limited that no definite conclusions can be formed as to its value in reducing the number of cases. Public Health officials have been and are still doubtful of the expediency of promoting a campaign of immunization against Scarlet Fever as has been done with Diphtheria immunization. The reasons are: 1—A lack of confirmatory evidence of its efficacy. 2—A fear that the unfavorable and often severe reactions some times encountered would react unfavorably against the use of well known and safe preventives used to protect against such diseases as Smallpox, Diphtheria, Tetanus, Typhoid Fever, etc. More recently blood serum from persons who have recovered from Scarlet Fever has been used to produce temporary immunity in exposed contacts. In 1930, Dr. F. M. Meadar, Director of Medical Service, Detroit Department of Health, made a controlled study of the use of immune serum, in which he announced the following conclusions.

1. "Four hundred and fifty (450) contacts with Scarlet Fever have been given 7.5 cc. each of pooled blood serum from donors who have had Scarlet Fever within one year or a little later. The serum has been given the contact within six months from the time it was drawn. A study of the subsequent history of the contacts shows that 2.9 per cent. developed Scarlet Fever, while 12.8 per cent. developed Scarlet Fever in a similar group of contacts who did not receive the serum. Apparently about 85 per cent. were protected from developing Scarlet Fever."

2. Immunity apparently does not last longer than three or four weeks.

3. The prophylaxis is particularly valuable for young children who have been recently exposed to

*Read before the Rhode Island Medical Society, March 2, 1933.

Scarlet Fever. It is also recommended for the infirm.

4. Prophylaxis has been found useful in checking outbreaks of Scarlet Fever in hospitals and other institutions.

A similar procedure has been successfully employed in the protection of young children against Measles. With a very high death rate from both Scarlet Fever and Measles in children under five years old, is it not our duty to use this means of protection more frequently than we have in the past?

Specific Treatments

A careful study of the effects of Scarlet Fever Streptococcus Anti-Toxin in the treatment of Scarlet Fever was made in 1931 by a surgeon of the Public Health Service in cooperation with two pediatricians in a Cincinnati hospital and the results reported in Public Health Reports, volume 46, number 51, December 18, 1931, shows the following observations:

One hundred and ninety-six patients were used—one half for control and the other half who received special serum treatment.

Effects on the eruptions shows the average period in control cases was 6.8 days, while those receiving serum treatment was only 4.3 days.

Effects on disquamation—no difference as to time but some difference as to the character of disquamation.

Effects on temperature—no material difference was noted.

Effect on complication—Here we find a somewhat marked difference in favor of those receiving Anti-Toxin. However, one paragraph of their Report has this to say: "The clinical data accumulated as a result of our studies fail to build up an irrefutable case for the use of Scarlet Fever Streptococcus Anti-Toxin in the treatment of Scarlet Fever. However, a study of the data presented shows that the Anti-Toxin has a specific action. It may well be that failure to obtain complete and constant results was due to inadequate dosage, delayed administration, or to an improper mode of injection."

Dr. J. E. Gordon, Medical Director of the Division of Epidemiology, Detroit Department of Health, has recently made a most exhaustive study of Scarlet Fever. In the American Medical Journal issue of January 14, 1933, he discusses the value of Immuno-transfusion in certain types of the dis-

ease. Out of a total of 13,003 cases of Scarlet Fever treated since 1927, only 246 were selected and treated by this method. The indications for this type of treatment were early septic Scarlet Fever and Septicemia associated with late complications. These patients were all extremely ill and many of them had a hopeless outlook. Out of the 246 cases treated by Immuno-transfusion, 47 died (19.1 per 100 cases).

Dr. Gordon states that the results in the treatment of Toxic Scarlet Fever are less favorable than with Scarlet Fever Streptococcus Anti-Toxin. He does not advocate Immuno-transfusion in all cases of Scarlet Fever, but believes all forms of treatment,—Immune Serum, Scarlet Fever Streptococcus Anti-Toxin and Symptomatic are useful in selected cases.

Criteria for Release of Isolation

A disease manifesting such varying intensity pathologically and clinically, we naturally expect varying opinions as to length of time isolation is necessary. Then we find that the likelihood of communicating Scarlet Fever to others is dependent on season, climate, age, the nature of the acute stage of the disease, its subsequent course and the complications that often occur.

The time limit of twenty-one to fifty-six days adopted by different municipalities and States is not altogether inconsistent, because we note that climate does have some effect on communicability. However, it is inconsistent to see two adjoining Towns, one with a twenty-eight days and the other with a forty-two days isolation period. This is actually true in one of our neighboring States. The element of time alone as a criterion for the release of Scarlet Fever is very unsatisfactory to the patient, his family, the attending physician and the quarantine officer. But for a lack of any other proven method or procedure, Boards of Health have been compelled to rely on the time element. However, it is now believed by those who have made a special study of this subject that a combination of time, negative bacteriological and clinical findings offer the safest criteria for release of Scarlet Fever. If the culture is negative for hemolytic streptococci, then we feel that the case is safe to release, but if the culture is positive for hemolytic streptococci, how is it possible to say that it is truly Scarlet Fever hemolytic streptococci? Bacteriologists are not yet able to tell us. We know

that hemolytic streptococci are often found in apparently normal noses and throats. In Diphtheria the bacteriologist is able to tell us whether we are dealing with a virulent or non-virulent organism. So you see by depending on bacteriological findings alone, we might keep many patients in isolation unjustly. In order to avoid this error it is necessary to determine the clinical and pathological condition of the patient. Here again Gordon has contributed valuable material from his careful and extensive studies of the complications of Scarlet Fever. Under the title: "Epidemiology of Scarlet Fever—a Clinical Approach," under date of February 13, 1932, in the American Medical Journal, you will find a full discussion of this subject by Dr. Gordon. In this treatise he points out four pathological conditions which must be taken into consideration before a patient can be safely released. They are as stated in tabular form with the number of cases in each group:

	Case	No.	Percent.
1. Suppurative Otitis Media	145	4	2.8
2. Cervical Lymphadenitis	200	16	6.2
3. Rhinitis and Sinusitis	437	28	6.4
4. Multiple Complications	294	21	7.1
Totals	1176	69	6.0

It will be observed that the infecting case rate for the complication, Rhinitis and Sinusitis is greater than for any other single complication with Cervical Adenitis running a close second. Contrary to general opinion Suppurative Otitis Media is scarcely more infectious than is patients released after simple Scarlet Fever. Of course, patients having a combination of two or more of these complications show a still higher infecting case rate. Dr. Gordon makes the following classification of the Rhino-Sinusitis discharges: active purulent, sero-purulent, crusting, pus on turbinates and simple coryza. In the order named these nasal discharges show infection rates ranging from 14.7 high to 2.5 low per cent. This demonstrates the practical value of careful clinical classification before releasing our Scarlet Fever cases. A careful consideration of these three criteria—time, bacterial findings, along with the clinical and pathological conditions—will do much to increase the safety on release of the cases. The total number of cases with complications after a twenty-eight days isolation is small and would not involve any great amount of extra work on the part of the attending physicians and laboratory technicians, to determine more accurately the condition of each patient before release.

In this small group of cases are to be found the greatest source of infection. It is generally conceded by most authorities that it is safer to release a simple uncomplicated case of Scarlet Fever at the end of twenty-one days than it is to release other cases with certain complications at the end of twenty-eight, forty-two or even fifty-six days.

Change in the Virulence of Scarlet Fever

Rosenau has this to say in regard to the change in virulence of Scarlet Fever: "One of the most striking phenomena in epidemiology is the progressive change in the character of Scarlet Fever. There has been no noticeable change in its incidence, but it has lost much of its virulence. This is the general experience everywhere. The figures from Providence, Rhode Island, are representative: From a mean mortality of 40 per 100,000 for the decade, 1875-1884, the rate had fallen to two per 100,000 for the decade, 1915-1924. For the past forty years the case fatality has shown a negative trend of 5 per cent. per year. During this same period the case fatality rates have varied greatly in different epidemics, ranging from 0.86 to 21 per cent. Wide excursions from year to year are characteristic of Scarlet Fever epidemics in all countries, but the downward trend is general."

The mortality rate for the State of Rhode Island is now about 1.0 per 100,000.

Since the incidence of Scarlet Fever has not been materially reduced and yet the death rate has been tremendously reduced, shows definitely that there has been a change in the virulence of Scarlet Fever. We may ask, why this change? No one has been able to answer this question satisfactorily. Two theories have been advanced: First, *mass immunity*, by which is meant that the population as a whole living almost constantly in contact with cases and carriers have built up a partial immunity against the disease. Second, that the organism causing the disease is gradually losing its virulence.

It may well be that a combination of these two factors is responsible.

Mass immunity against Diphtheria has been demonstrated by the application of the Schick Test in densely populated areas as compared with sparsely populated areas, in which it is shown that the densely populated areas have a higher degree of immunity than the sparsely populated areas.

The second theory needs laboratory confirmation before it can be accepted as a fact.

What is the significance of this change in virulence? We have shown that it has caused a decided reduction in the death rate from Scarlet Fever, but practically no change in the incidence of the disease. This means that we are having a very large number of mild or atypical cases, which do not manifest all the cardinal symptoms. Diagnosis, therefore, is becoming more and more difficult. The difficulty is so great, we believe many cases go unrecognized and thereby become the greatest source of infection and spread of the disease. It is the consensus of opinion, many cases of Scarlet Fever never manifest the one diagnostic point, Erythema, which we usually depend on for positive diagnosis. Many examples of this might be pointed out. Here is one which the writer observed in consultation with a physician attending a family consisting of father, mother and three children, who were involved. The youngest child, three years old, came down with a disease which had all the symptoms and signs of Scarlet Fever, except the rash. Ten days later the mother had a very severe sore throat. Two days later the eleven year old son came down with similar symptoms as the first case. One day later the nine year old son came down with a typical case of Scarlet Fever with a definite punctate Scarlet rash. According to a written record kept by the mother, the two sons nine and eleven years old, had definite cases of Scarlet Fever in 1927. If the last case had not manifested the rash, the three other cases no doubt would have gone unrecognized. It is easy to suspect any case of sore throat with sudden onset, nausea and vomiting and quick rise in temperature as being caused by Scarlet Fever hemolytic streptococcus, but it is another matter to say positively it is a true case of Scarlet Fever. The history of exposure or even the prevalence of Scarlet Fever in the community should cause us to have a throat culture taken and if positive for hemolytic streptococci, the case should be isolated and await further developments. The case should be seen often enough to observe any rash that might appear. It may be of fleeting nature and found only in the skin folds. Effective control of any communicable disease depends on early accurate diagnosis.

Conclusions

The uncertainty and confusion concerning certain aspects of Scarlet Fever discussed in this paper need clarifying before safe and sound meas-

ures can be adopted for effective control of the disease. The underlying cause of all this uncertainty and confusion rests on our inability to establish beyond a shadow of doubt the causative agent or organism responsible for the disease. Further study and research are necessary to establish and correlate the facts already known. The medical profession as a whole can and should contribute data for study to help solve these problems.

PROGRESS TOWARD VOLUNTARY SEX DETERMINATION*

By FRANK S. HALE, M.D.

253 ELMWOOD AVENUE, PROVIDENCE, R. I.

The advent of the Ascheim-Zondek Test has stimulated remarkable research activity in the field of the female sex hormones. Thus our ideas of the menstrual cycle, the secretory action of the ovary and allied glands, and the stimulation of lactation have been greatly changed, and logically, our present glandular therapy will be radically altered. With a definite means of determining the presence of pregnancy, our next line of thought would be: can one determine the sex before birth? In natural sequence, we further would question—can sex not only be determined but also voluntarily controlled?

In the following resume, I have endeavored to recount the work, observations, and conclusions of a few of the outstanding experimentors in these fields. All of these do not agree; many facts and theories may appear to be antagonistic; but on the whole, there is very definite progress.

The writer submits these findings not as a fellow research worker but only as an interested clinician. To adequately check many of these reactions would require an authoritative embryologist, serologist, and pathologist combined. However, widespread interest has been aroused, much work has been done, and definite progress accomplished. A recount of these findings may furnish us with some standards.

At the St. Joseph's Hospital, we have been particularly interested in the A. Z. test. Early in 1932, Dr. Castello presented at a staff meeting a very excellent paper describing the technique as used at the New York Medical Center. This re-

*Read before the Providence Medical Association, February 6, 1933.

quires no repetition but as this test is the basis of almost all animal experimentation in this field, I believe a description of some of its variations will not be amiss.

For example, in one of my private cases with the question of ectopic pregnancy, the ovaries of the rabbit tested were apparently diseased and no definite report could be made. I checked, using mice as the test animals, and there was a very clear-cut *negative* reaction. Thus for real accuracy, when using rabbits as the test animal, even if these rabbits have been segregated the full month, their ovaries may be useless for the A. Z. reaction due to previous pathology. This could be obviated by first sectioning the rabbits, checking the normalcy of the ovaries, allowing time for recovery, and using only approved animals for the A. Z. test. This method would require the expenditure of considerable labor. As a routine, where the element of time is not important, mice seem to make the more satisfactory test animals.

Last December, another discrepancy occurred. The patient was clinically pregnant but the size of the uterus did not correspond to the omitted menses. No foetal movements were felt, no foetal heart or placental suffle could be heard, the A. Z. test was negative. While Dr. Coleman and I were examining this patient then apparently in active labor, she expelled a small macerated foetus together with a detached placenta. This lack of placental attachment accounts for the negative A. Z. test. The Truesdale clinic reported a similar instance at the December meeting. Their case had caused considerable controversy among the surgical, obstetrical and pathological departments until the removal of a macerated foetus finally settled the question. These discrepancies are cited not as any disparagement of the value of the A. Z. reaction but to emphasize the necessity of a thorough clinical study in addition to the Asheim-Zondeck test.

Dr. George Wyeth, an American serologist, is quite elaborately working out blood serum reactions especially in regard to sex tests. These tests are largely compliment fixation reactions. Blood from an individual who has attained puberty can be definitely classified as coming from a male or female. This is done by using ovarian or testicular antigens. The test should have much medical-legal value. When these reactions were performed with the blood serum of pregnant women, he finds an abundance of anterior pituitary, and a strong re-

action with corpus luteum. Most of these bloods were taken in mid and late pregnancy. To date, he has not determined the earliest appearance in pregnancy of these reactions, and he has found no difference in the reaction whether the woman be carrying a male or a female foetus. However, Wyeth's tests have been carried out in cases of carcinoma where he finds the constant presence of anterior pituitary antibodies; their absence in syphilis and T. B., and very weakly positive in benign tumors. He, therefore, suggests, although this is aside from our subject, that cancer may be due to a disease or disturbance of the anterior pituitary function. Wyeth's report is only preliminary. He reports no reactions where a hydatid mole was present.

Sharlit and Loiberblatt, working in the Harri-man Research Laboratory at the Roosevelt Hospital, find the classical Manoilous chemical test for sex determination attractive and probably eventually possible. With them, however, urine seems to react as well as blood, and neither very accurately. Their careful check work seems to disprove the sex determining value of the Manoilous reaction. Here again that a woman be pregnant with either male or female foetus, seems to make no definite difference with the reaction. A chemical sex determination test may be evolved later.

Most of us read the preliminary report of Dorn and Sugarman in the November A. M. A., concerning their male rabbit tests for determining the sex of the unborn foetus. Briefly, their test consists in injecting 10 cc. of the morning urine of a pregnant woman into the ear vein of a young male rabbit, just at puberty, whose testes have descended into the inguinal canal but that have not advanced into the scrotum. In 48 hours, the testes are excised, examined, and in some cases sectioned. If the foetus be a male, no changes from the usual histology are found. Should the testes be congested and engorged together with microscopic evidence of precocity of the testes for that given stage of development, the diagnosis is a female foetus. This reaction does not give the definite picture found in the A. Z. test. Male rabbits vary greatly in their age of puberty. The usual time is three months, but this is by no means constant. Of course, the larger breeds are better as experimental animals as the testes are more easily palpated in the canal, and when excised these larger testes show the reaction more clearly. The breed of the rabbit, too, is quite a considerable

factor. Dorn and Sugarman did not bring out these points. The observation of many normal testes is required to enable one to give a reasonably accurate opinion, and even then many of the testes may require sectioning and microscopic study. Dorn and Sugarman successfully diagnosed 80 of 85 cases in their preliminary report. In twin pregnancies, should the twins be of the homologous type, it would simply accentuate the reactions. Should the twins be identical, the reactions would be so nullified as to give no accurate report. No specific report has been given to date on reactions in any great number of cases of twins. This test requires quite wide histological knowledge of rabbits' testes and also, the ability to make standard or rapidly fixed sections for microscopic study. Reports from different clinics on this test vary. Most of the mistaken diagnoses are made early in their series before sufficient comparative knowledge of the testes has been acquired. This test picture will probably never be as clear cut as the A. Z. test but I hope that a valuable diagnostic method for determining the sex of the unborn foetus at least in mid and later pregnancies has been discovered. Just why the presence of a female foetus so stimulates the rabbit's testes as shown in this reaction has not been explained.

Dr. Box of the Hospital San Carlos, Madrid, has written very convincingly on sex determination from the standpoint of the chromosomes. Of necessity, many of these deductions are based on theory. First, he classified the published percentage of males to females by birth records; England having 103.6 males per 100 females; Spain having 108.8 males per 100 females; and other countries ranging between these figures. An even higher percentage of males was indicated in records of still births and aborted foeti. In England this was 125 males to 100 females; in Spain 162 males to 100 females. Box was not satisfied and realizing that mistakes as to the actual sex of an early foetus were quite common, he autopsied a large series of aborted foeti. In these, by microscopic study, the sex was absolutely determined and there was very little difference in the percentages of sex. He concluded that a national yearly record where the sex of the still births and abortions were properly diagnosed, would show nearly equal proportions of male and female births.

He next investigated the German birth records during the period of the World War, taking only

the birth records of soldiers' wives where a systematic check had been made showing the exact time of the menstrual cycle, and when the husband had returned home on leave. The resulting statistics are as follows:

Coitus 1 - 9 days following menses—90 boys to 100 girls
Coitus 10 - 14 days following menses—equal proportion

boys and girls
Coitus 15 - 22 days following menses—100 boys to 90 girls

and finally, when coitus occurred just before or with the onset of menstruation, the resulting foetus had practically always been a male. The family life of these wartime individuals was far from normal. Pregnancy was greatly encouraged especially in Germany, and the fact that a woman was menstruating did not interfere with coitus. These findings, however, accounted to Dr. Box for the higher male proportion—i. e. 108 to 100 occurring in the Spanish records, giving for his reasons the marked increased libido just before menstruation noted in the women of his race and climate.

By the authorities of Montgomery, Wilson, Novak, Painter, and Winiwarten, Box states that the male cell is the sex determining factor. In simple form, his theory is as follows:

In the male cell, the chromosomes either contain or have a special chromosome which acts as an enzyme or activator, which he calls "X." When this X is present, the impregnated ovum always produces males. If this quality X is altered or destroyed, the sperm cell may yet consummate impregnation but a female foetus will develop. This statement is highly theoretical, and is backed up by very little microscopic proof.

There has been considerable controversy about the actual number of chromosomes occurring in the human sperm. The stated number ranges from 22 - 64. One of the latest authorities, Dr. Painter of Austin, has placed 48 chromosomes for the ovum and 47 for the spermatozoa. This number is now accepted by most of the investigators as the standard for the human race. That the sex factor is one separate chromosome or that it is contained in all the chromosomes is not agreed upon. Painter has carefully studied these cells in their various phases of mitosis. Thus, according to the theory of Box, if the X factor is retained, the result will be a male foetus. However, there seems to be other factors entering into this result—notably, the acidity of the vaginal secretions. The relative amount of this acidity normally varies with the

given period of the menstrual cycle, being strongest just preceding menstruation and weakest just following. Then again, it is built up through the rest period to the strongest point again during premenstruation. Thus a certain degree of acidity seems to be required for the spermatozoa to retain its X enzyme and produce males—i.e. according to Dr. Box's theory, and apparently substantiated by the War birth statistics of Germany, which were compiled by Siegel and Levy.

Unterberger, although not present at the International Genetic Congress held in New York last summer, reported his results in voluntary sex determination. This received a great amount of publicity. Much of his work was done with cows. This is known as Unterberger's soda-bicarbonate and lactic acid theory of voluntary birth control. His technique consisted in strongly alkalinizing the vagina just before coitus with bicarbonate of soda. He recorded in 53 cases that were either non-parous or had always borne female children, that as he states it, by simply bedaubing the penis with bicarbonate of soda just before coitus, the entire 53 cases gave birth to male children. Unterberger also suggested a routine diet to precede and follow coitus. If males were desired, large quantities of bicarbonate of soda should be ingested—if females, a large amount of lactic acid obtained by sour or by butter milk was included in the diet. As Unterberger's work apparently flatly contradicts Dr. Box's acid theory, the latter began immediately a check series, using the common rabbit as the easiest available experimental animal. The rabbit has this advantage—that it only ovulates when stimulated by coitus—also, its period of pregnancy is quite short, being approximately one month. However, there is *this* disadvantage:—several young are the product of each pregnancy whereas Unterberger had used cows and the human species wherein a single foetus is the usual result. Merlet of Berlin, observing the results of 2,353 rabbit pregnancies, recorded a slightly greater percentage of males—i.e. 103 to 100 females. Dr. Box injected into the rabbit's vagina just before coitus an alkalinizing agent. The sex of the young rabbits can be determined about a week after birth. He used a small series, only 19 rabbit pregnancies being thus treated. His result was 54% males to 46% females. True, this was not a large series and perhaps a slight increase in the percentage of males resulted. But there was no 100% males as in Unterberger's test, and Box is still holding to his acid theory. He suggests, however, that the excess alkalinization with soda bicarbonate used by Unterberger may have so combined with the normal vaginal lactic acid as to form carbonic acid thus actually *increasing* the acidity of the vaginal secretion. That being the case, the acid theory still holds and both observers are agreed.

Several workers in this field of research—notably Wilson and Saltz, do not entirely accept the chromosome theory as being complete. They suggest that other influences not now accounted for play a very important part. For example, that the action of other glands of internal secretion may also influence the final determination of sex.

It has been noted that poorly nourished mothers more frequently reproduce females, and there has been advanced no particular reason for this. Excess acidity of the vaginal secretions for a long time have been considered as having a marked inhibitory influence on impregnation by chemically injuring the semen. Several of us may have advised an alkaline douche preceding coitus to lessen the acidity and favor pregnancy. When pregnancy did result after this treatment, no particular sex predominated. Then again, in artificial impregnation by the Mears tube method, where the semen comes in no contact with the vagina, the result will be either boys or girls.

The Talmud says "that in order to bring forth a son, it is necessary that the woman ardently desire her husband and to bear daughters, the husband must violently desire his wife and better, that he surprise her unexpectedly."

The idea that one ovary produces boys and the other girls respectively is of course disproven by cases of women having had one ovary excised and later producing children of both sexes.

To give a complete resume of all the research and folklore on the subject of voluntary sex determination could hardly be encompassed in this paper. It has been my purpose to cite only recent findings in this field—one in serology, another in chemistry, one with animal experimentation, and finally, the most recent additions to the chromosome theory. I have undoubtedly omitted mention of several important workers in these fields.

Conclusions

1. The Ascheim-Zondeck test has given us a very valuable and early means of determining the presence of pregnancy.
2. Serological tests for pregnancy have more or less been developed. These may attain the accuracy of the A. Z. test. Their technique, however, is more exacting and more difficult.
3. Should the claims of Dorn and Sugarman be verified and substantiated, a reaction for the determination of the sex of the foetus in at least the later part and in single pregnancies will have been developed.
4. We can hardly accept unreservedly the claims for voluntary sex determination as put forth by either Box or Unterberger until much further research has been done.

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RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

N. DARRELL HARVEY	<i>President</i>	Providence
CHAS. S. CHRISTIE	<i>1st Vice-President</i>	West Warwick
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Meets the second Thursday in each month

DR. CHARLES S. CHRISTIE	<i>President</i>	West Warwick
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R. I. Ophthalmological and Otological Society—2d Thursday—October, December, February, April and Annual at call of President.
Dr. Herman A. Winkler, President; Dr. N. A. Bolotow, Secretary.

The R. I. Medico-Legal Society—Last Thursday—January, April, June and October, Dr. Fenwick G. Taggart, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

PAWTUCKET

Meets the third Thursday in each month excepting July and August

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A. L. VANDALE	<i>Secretary</i>	Pawtucket

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Meets the first Monday in each month excepting July, August and September

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WASHINGTON

Meets the second Wednesday in January, April, July and October

E. E. KENYON	<i>President</i>	Kingston
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Meets the second Thursday in each month excepting July and August

W. A. BERNARD	<i>President</i>	Woonsocket
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EDITORIALS

MORE MATERNITY STATISTICS

Apropos of recent comment in these columns, concerning a short editorial which appeared not long ago in a lay journal of wide circulation, it does not seem amiss to speak of the remarkably good statistics published in the annual report of the Providence Lying-In Hospital for the year 1931. There is every reason to believe that the report for 1932, soon to be available, will compare favorably with that of the previous year.

First of all, the figures, which have been set

forth, concerning the mortality of childbirth in hospitals, as compared with that of childbirth in the home, are concerned with the results obtained in general hospitals, where from the nature of the institutions sorts of illnesses, with perhaps the exception of the commoner contagious diseases, are cared for under one roof. Much better results are obtained in hospitals where the sole objective of the institution is the care of late gestation and delivery, and the out-door supervision of early pregnancy. The difference between the types of hospitals apparently has a very definite effect upon the results. This fact alone bears out the reasoning used—long before adequate microscopic study was

available—by Semmelweiss in Europe and Oliver Wendell Holmes in this country. The physician might well explain to his patients, as occasion arises, that the dangers of childbirth are far less in a modern maternity hospital, than generalized statistics would lead them to believe; and in so doing he need not use the trite reference to the veracity of statisticians.

The record of the Providence Lying-In Hospital is excellent. It shows a maternal mortality, which is, generally speaking, only a quarter of one per centum; and, be it remembered, these figures are based upon thousands of cases. It is a truly wonderful tribute to the physicians who so willingly—and generally without remuneration—serve these suffering but happily expectant patients, to the nursing staff, where patience still remains a cardinal virtue, and to the kind donors who made the physical equipment possible. Such a record may be heralded with the utmost pride, when one reads the quoted sentence, "There is no question that delivery in the general hospital carries a much higher danger of contagion than delivery in the home." The statement is undoubtedly true, but it should be borne in mind that it refers directly to general hospitals. However, it is fair to add: the figures on maternal mortality for Providence are one-tenth of one per centum better than the country at large, and, the figures for our local lying-in hospital are more than twice as good as those for the whole city. The dissemination of such knowledge would add to the peace of mind of the potential mother and reflect just credit upon the profession, at a time when, in the eyes of the lay public, it should do good.

To those of the profession, who labor in obstetrical work, that is done in the wards of a general hospital, the way is clear: "Cleanliness is next to godliness."

KLEINE KLINISCHE ZOLLVEREIN

"Never refer a patient to Doctor X," a friend counselled us recently, "for if you do that patient will simply drop out of existence as far as you are concerned." This observation was not so much a condemnation of the doctor as of the informal organization of which he is perhaps almost unconsciously a member. It was not so much an arraignment of the organization, either, as of the

system under which that organization operates—the system of medical cliques with which the profession is riddled.

The cause of our friend's irritation was not far to seek. He, a surgeon, had referred a patient to X for management of some medical condition. Later he had learned through devious channels that this same patient had been operated upon by another surgeon, a member of the coterie to which X belongs. Naturally the experience rankled. But it was not unique. We have all had similar ones. There are hundreds of such combines as that to which X belongs in every sizeable community. Any patient, by whomever referred, coming to any member of such a group is passed on like a human medicine ball from one specialist in the clique to another, as far as his symptoms hold out, and seldom indeed does he return to the practitioner who referred him unless that individual chances to be allied with the same group. The existence of such associations is inevitable as long as there is a mercenary element in our allegedly altruistic profession. And since, with the passing of the centuries, human nature appears to be essentially unchanged, there probably always will be such an element.

There is nothing new in these observations. They are every day topics of conversation among medical men. But what to do about it? Frankly, we have no answer for this question. If there are those among us to whom the tenets of medical ethics, (which reduced to their simplest terms are merely the application of the golden rule to our relations with our patients and with one another) are too complicated for comprehension or too arduous for application, their case is indeed hopeless.

There are just two questions which a physician in alliance with such a group must face: Is it to the best advantage of the patient? Does it serve the best interests of the medical profession?—We think not.

A NOBLER EXPERIMENT

Recently a new method of admission to the free clinics has been adopted at the Memorial Hospital in Pawtucket. Patients who expect to receive free hospital care and medical service must be sent there by the Department of Public Aid.

This step limits rightfully the charitable efforts of the institution and its staff to those who really need and deserve such service. The demands made on such facilities in this country are increasing steadily year after year and investigation of the cases applying for gratuitous services often reveals the paradoxical picture of sufficient financial background to provide private medical care.

Recently during a visit to the charity ward of one of our large hospitals the visiting physician was asked by a free patient, "When may I drive my car?" Casual observation is enough to discover a large number of free patients to be undeserving of the gratuitous expert advice of the prominent specialists who visit our hospital wards, and these patients are preying upon the generosity of the altruistic men and women who by their loyal support are maintaining the institutions.

Social service departments have done little towards checking this raid. Recently a social service worker's reply to a query about the necessity of an evidently well-to-do patient receiving free treatment was, "We are not a financial agency." In fact the social service worker and sometimes the district nurse is, in the average, prone to refer patients to free clinics without regard to the patient's ability to pay. Doctors themselves frequently and thoughtlessly refer patients to hospitals for special investigations well knowing that the patient could pay for these services, and yet they are deliberately sent in to the clinics and encouraged thereby to perpetrate the great American fraud,—Get something for nothing even if one lies to do so.

It is high time that this unfair state of things should be curbed, and the Memorial Hospital is to be congratulated for the courage to do so. May this sensible "noble experiment" prove effective, and light the way for others to follow their splendid example.

No true physician exists who is sparing of time, energy, willingness, enthusiasm, or even life itself in behalf of a truly worthy charity patient, but the abuses which have grown up under our system of free clinics have shaken the faith of the profession in its respect for "their public."

(FROM THE SIDE LINES)

COOPERATION BETWEEN HOSPITAL, PATIENT AND PHYSICIAN

By CHARLES E. HAWKES, M.D.

355 THAYER STREET, PROVIDENCE, R. I.

What I have to say on this subject, has been derived from my acquaintance with, and experience in, various hospitals, extending over a period of twenty-five to thirty years, and does not refer to any one particular institution. I make this statement, believing that hospitals in general are very similar, as regards their care of patients.

Hospitals

Hospitals have increased both in size and in numbers, during the past fifty years, and supply a long felt need in all communities. Previous to their existence, patients both surgical and medical were obliged to be cared for in their homes, by doctors who gave them as prompt and as frequent attention as the distance in miles and the stress of their practice and means of locomotion permitted. The poor, as well as the more well-to-do, demanded the medical man's time and care. The nursing was supplied by the women friends and neighbors, often in relays. Under these circumstances, surgeons and physicians alike worked long and laboriously but creditably, though under great difficulty.

The advent of the hospitals has proven a boon to both patient and physician. The physician is now able to share the care and treatment of his poorer and also his more seriously afflicted patients, with the hospitals, and the latter are able to surround the patients, both poor and rich alike, with the best of care obtainable.

Complaints of Patients with Suggestions for Correcting Causes

Now it is about the care that the hospitals actually give the patient that I wish to call attention.

Many patients, especially the ones who are less disabled, by either sickness or injury, or those financially fortunate enough to be able to afford special nursing attention, make no complaint of their general care, while sojourning in the hospital. But there is a large class, more particularly those

in the ward beds, but by no means limited to them, and those who cannot pay for special or extra nursing attention, who complain of the lack of care or of the poor quality of care received while in the hospital.

Visiting physicians to hospitals all know that a certain number of persistent complainers are better fed and better cared for in the hospital, during their disability, than they would be in their own homes. But let us turn our attention to a list of some of the complaints that these patients make. It includes the following: Signalling for a nurse's attention, and waiting an excessive length of time, even as long as an hour, before receiving a response; waiting an excessive length of time, when in need of the use of a bedpan, following the previous administration of a laxative; waiting an excessive length of time before receiving any medical attention, after arriving at the hospital; disturbed by loud talking and by loud noises outside of their room, or in the ward, both by day and by night; disturbed by the early morning routine of the hospital, especially when they have been kept awake the night before by pain or by severe illness; disturbed by window washing and by other periodic chores, when they are feeling the sickest; the shock to their nervous systems when they are obliged to lie and listen to, and often to witness the groans, vomiting, hemorrhages and sufferings of nearby patients; the sight and sounds of patients near at hand, just before they die, and the preparation of the latter before they are finally trucked away. Patients complain of the noises of those who are coming out of the effects of ether; of visitors swarming in to talk with their neighbors; of losing money and their other valuables during their stay in the hospital; of not receiving fruit, and other articles of food left by relatives and friends for them, and supposed to be cared for, by the hospital. They complain of being obliged to dress differently while in bed than when they are at home, and of windows being left open near their beds, resulting in their catching severe colds and even suffering from pneumonia. Finally, and by no means least important of all, must be added the ever rapidly mounting expense to the patient while he resides in the hospital. This list could undoubtedly be generously added to.

Suggestions for the correction of the complaints,

already enumerated above, will serve to cover a list several times its length.

Let us begin with the admission of the patient into the hospital. I can see no reason why such a patient should not receive the prompt attention of at least one of the assistant superintendents, or a resident physician, who could offer the greatly desired display of sympathy to the patient and see to, or direct his prompt removal to bed, to operating room, or wherever he should go. The patient looks upon his first visit to a hospital with more or less dread, for his mental picture of what goes on in such an institution has been formed mostly from stories, which, to the uninitiated are far from sounding attractive. He is not favorably impressed with the scurrying hither and thither, of orderlies and nurses, who pay him scant heed, but go about their duties with laughing and chatter. The one who puts a kindly hand on his shoulder and begins to take his indisposition at heart is the one he reaches out to cling to in his misfortune. In other words, this human element, touch, or sympathy is what the patient is accustomed to at home, but which is very apt to be found lacking in the hospital.

I have heard patients say that they have actually waited an hour, by the clock, before a nurse appeared in response to the repeated signaling to her desk. Of course, we all know that this is not a common occurrence and that furthermore, it should not be, but we do know that there are more unpardonably long waits than should occur. If there is only one nurse on duty and a particularly sick patient occupies her undivided attention for a long period of time, then there is fault with the organization or system of the hospital. Where there is one, or more, seriously sick persons in the ward, more nurses should be on duty there, or else orderlies or convalescent patients, or both, should at least answer the signals, and either run the necessary errands, or report to the nurse for her solution of the emergency.

I have stated more than once, that one of the best gifts that could be given to a hospital would be a supply of bedpans sufficient to allow one for each bed and have it hung in a place handy for the patient to reach it. Possibly to some, this statement may appear in the light of an exaggeration, but I will make this suggestion, that whenever a patient has been given what is expected to result in a

thorough-acting laxative, a properly protected bedpan should be placed in his bed, or near at hand, for him to use, if assistance is liable to be slow coming, for sufficiently good reasons. This particular complaint of patients is not an uncommon one, it has existed for years in some institutions, without any noticeable attempt at its correction. Also loud noises, or continued noises, and talking and laughing, disturb patients who are sick. It is difficult for those who have never been very ill, to realize this. At home, the complaints of the patient are apt to be heeded and provisions made to accede to his wishes, but in the hospital, he naturally finds it more difficult to bring this about. Signs requesting quiet, are not enough. The necessity for controlling noises of all kinds, should be repeatedly explained to nurses, orderlies and workmen, about the hospital, and in its vicinity. Nurses and orderlies remain a comparatively short time in the hospital, and this is what makes the frequent drilling in the anti-noise campaign so important. There is too little supervision of this either by the superintendent's department or by the nurses' office.

Another rather common complaint is occasioned by the hospital's routine work in the early morning. Patients are aroused early, to allow for the necessary cleaning up work about the wards. This includes bathing and feeding of those confined to their beds. The trouble with general rules governing such institutions as hospitals is, that exceptions to them are too seldom made. For instance, the patient who has been kept awake for the greater part of the night, due to discomfort of one kind or another, may finally fall asleep, near daylight, only to be aroused with the others, so that the hospital affairs may not be impeded. I have often remarked that from my observation and personal experience, the hospital is planned to take precedence over the patient, and I believe this to be a wrong method. The hospital is for the patient and not the patient for the hospital. A quiet room should be selected for the use of those usually few patients, in which they could be placed, and not be disturbed in the early morning. It means much to such individuals, even though it may be considered of little importance by those who have been fortunate enough to have enjoyed a good night's rest.

To present another example, along this line, why should it be insisted upon that windows be washed

in the presence of seriously sick patients? This duty entails pushing up and down windows, tramping about the patient's room with a squeaking pail, and then the scrubbing noise. A job like this can hardly be expected to quiet the nerves of one who sleeps poorly, eats but little, and is restless and irritable, the result of his sickness. If such windows were not cleaned for another week, it would add to the patient's comfort, even though the postponement did interfere for a few days with the general hospital routine. I realize, as we all do, that a large institution cannot be governed satisfactorily without the establishment of certain general or routine rules, but care should be taken not to lay down such hard and fast ones that they cannot be broken, where the proper care of the patient is concerned.

A very just cause for complaint by the patient results from keeping him near those in serious distress and those about to depart from this world. It is not right to subject people who are unaccustomed to the presence of suffering and the throes of death, to such scenes when they are sick themselves. It is discouraging to them, to say the least, and should tend to prolong their illness or convalescence and add to their previous dread of hospital association. The sickest patients should be apart by themselves.

More attention is given nowadays to allowing ether subjects to recover from the effects of their anesthetic before returning to their regular beds, and this plan prevents the disturbance of neighboring patients.

Most of the very sick people receive too many visitors, probably more than the attending physician is made aware of. Individuals who visit the ill, do so usually, under the best of intentions. They believe that they are aiding them both to pass time pleasantly, and also to take their attention away from their discomforts. On the other hand, the sick ones may not be feeling well enough to entertain visitors, and therefore their physical and mental ills may be made worse and upsets result, and convalescence prolonged.

A rather common complaint is caused by another routine hospital rule. I refer to the one that compels the patient to remove the undershirt he is always accustomed to wear, by night as well as by day, and then draping him in a night robe that ties

in places in the back, usually leaving that part of his anatomy exposed somewhat, unless he decides to retain the decubitus position. It makes no difference whether the patient is a child or an aged person. The rule is a blanket one, but even so, it fails to shed its warmth sufficiently, and when the window at the head of the bed is raised or lowered, the result is not infrequently a serious illness, such as pneumonia and occasionally a fatality. I can't understand why measures aren't taken to prevent unfortunate occurrences of this kind, and if they have been, my experience has so far failed to make contact with it. Why not, I ask, allow the aged ones, whose circulation is poor and consequently are less immune to catching cold, than the younger individuals, to retain their undergarment and wear it, according to their custom and need? It probably makes a little extra work for the hospital, another suggestion that the patient's welfare comes second.

*The Need of Better Cooperation Between
Physician, Superintendent and
Trustees of Hospital*

It is possible that some of the criticisms just enumerated, do not come to the notice of either the superintendent of the hospital nor to the visiting trustees, but in the absence of practically all means of regular contact between them and the visiting staff of physicians, this is not to be wondered at. Many things that take place in the ordinary care and treatment of patients in the hospital, errors of both omission and commission, are not communicated to the superintendent's office, for very obvious reasons. Criticisms are not warmly welcomed in the hospital, and are seldom sought. I have never heard of the trustees inquiring among the staff members for suggestions or criticisms of anything that takes place in their department. It may occur, but it has never been brought to my attention, and I have made a few inquiries along this line. A hospital cannot be run to the satisfaction of the patient, unless this occurs, and it is the satisfaction of the patient that should always be sought, for without the patient, the hospital would have no excuse for its existence.

The visiting physician is the only one, of all those who have anything to do with the care and treatment of hospital patients, who visits people in their homes. He consequently becomes more

intimately acquainted with their likes and dislikes, emotions, habits of living, desires and even demands, than any of the others. This knowledge should be an asset to the running of the hospital, and could be easily obtained.

Suggestions for Better Cooperation

My suggestion would be to hold a conference once a year or *oftener* if deemed advantageous, between representatives of the trustees, the superintendent's office, and the visiting staff of physicians. Topics for discussion arising in the departments of any of the above representatives could be brought up at these meetings and satisfactorily disposed of, for they would be topics of interest to all who had the welfare of the hospital at heart. Criticisms like those I have enumerated could then be discussed and undoubtedly solved, within the hospital walls, instead of being made public property, as at present, to the detriment usually of the hospital. A much happier and more friendly cooperative spirit would be aroused among all departments of the hospital, than now exists, when an occasional greeting or hand shake is the only point of contact that is made, from one year's end to the other. This arrangement would also do away with the feeling that one department is going over the head of another, to obtain information, and thereby prevent any ill feeling that might possibly be stirred up.

THE CLINICAL-PATHOLOGICAL CONFERENCE
AT THE
RHODE ISLAND HOSPITAL

Case No. 1. Presented by Dr. Alex Burgess.

E. P. Age 54. Native cement worker.

C. C. Weakness. Loss of weight. Edema about eyes. Nocturia.

P. I. Until November, 1931, patient was overworking and keeping irregular hours. At that time business began to fail and he began to worry, lose weight and noted increasingly frequent attacks of weakness and dizziness. Normal weight 160. Present weight 130-135.

For 10 years has had attacks of nocturia 2-3x lasting for 1-2 weeks at a time. At present has nocturia every two hours and night volume is greater than day. No hematuria or tenesmus.

Has had edema of eyelids for past two days.

Systems. Negative except as noted.

F.H. Irrelevant except that mother died of Hodgkins disease.

P.H. Measles, mumps, pertussis. Pneumonia at 14 years, good recovery.

Physical Examination
(only positive findings)

Well developed, poorly nourished, white male adult, short and cooperative.

Head. Alopecia.

Eyes. Left pupil larger than right. Ophthalmoscopic examination shows number of fine opacities (threads) in vitreous of both eyes. Retinae are pale, discs pale, well outlined, flat. Retinal vessels (veins and arteries both) are small. Several irregularly outlined white patches in retinae. No fresh hemorrhages. (Hyalitis and retinitis).

Teeth. Many out. Others poor condition.

Tongue. Dry, furred. Mucous membranes pale.

Neck. Carotid and jugular pulsations prominent.

Chest. Emaciation.

Heart. Slight enlargement to left. LBD=10 cm. blowing systolic murmur best heard at apex. B.P. 120/60.

Peripheral vessels. Some arteriosclerosis.

Genitalia. Both inguinal rings markedly dilated.

Laboratory Data:

Urine: Negative except for L.P.T. of albumen and occasional hyaline and granular casts. (These disappeared on subsequent examinations.)

Blood Chemistry: Urea 20, Sugar 76.

Blood studies, 2/4/32; R.b.c., 1,440,000; W.b.c. 7,450; Hg. 74% (s); Smear showed anisocytosis, microcytes and reticulocytes. P.M.N., 76%; lymphocytes, 24%; icteric index, 3% corpuscular volume, 19; corpuscular volume, % 42; color index, 1.57; mean corpuscular volume, 135; volume index, 1.5; saturation index, 1.04.

Progress

2/8/32. Inasmuch as the blood studies were so suggestive of P.A. the patient was given Lederle's liver extract 3 cc every 6 hours for 4 doses. The reticulocyte count was done daily but failed to show any response. (5%, 5%, 5.2%, 3.1%). 2/11/32. R.b.c. 1,970,000; Hg. 36% (s). 2/14/32. R.b.c. 2,570,000; Hg. 40% (s).

2/8/32. Stools tarry—Benzidene 4 plus.

2/10/32. Gastric analysis showed free HCl. after administration of histamine.

2/10/32. Wasserman and Hinton reported positive. (positive on repeated test).

2/9/32. X-Ray report "Stomach normal in position and outline, and empties fairly well. Marked dilation of first portion of the duodenum, which is fairly smooth. Advise further study, including G.B."

Subsequently: No lesion seen in small or large bowel. Gall Bladder not visualized. Advise repeat.

2/20/32. Patient suddenly developed lobar pneumonia in left chest. Feltons serum given once. Type III grown out of sputum. Serum therapy discontinued.

2/27/32. Patient died.

Case No. 2.

This is a 54 year old man who came in because he was very weak. He lost a lot of weight. He had been working extremely hard and was all run down. His only other complaint has been nocturia, and a little edema of the eye lids. Nothing in the record history. As we looked him over we noticed a few things of interest. The left pupil was larger than the right, etc. (read mimeographed copy).

Everything pretty normal except for this marked anemia. Blood chemistry practically normal. When we came however to microscopic study of his blood we struck something. His hgb. was not as low as we thought. He had a very high color index. The differential was practically normal. Examination of his blood then showed an anemia. On the blood alone we were inclined to make a diagnosis of pernicious anemia. However the icteric index was only 3%. As we studied him we found he had 5% reticulocyte in his blood. He was given liver extract. We gave four doses. If you will notice under progress (5%, 5%, 5.2%, 3.1%). Those were taken over about seven or eight days time. In other words there was no rise in reticulocytes at all. He also showed free hydro chloride in his gi. analysis. We also found a four plus Benzidine in his stools. Wasserman and Hinton were reported as positive and were repeated again and again they were positive.

They advised gall bladder study. This was not visualized and they advised repetition. This patient developed a rise in temperature to about 103 with

dysp. and rapid pulse and with signs of consolidation in his left chest. We gave one dose of serum which had no effect whatever. We found a type III pneumococcus in his sputum. He went through a course of about a week with his pneumonia doing fairly well for a few days and then going rather suddenly bad. So we have an unexplained anemia which we first thought would turn out to be P. A. We had evidence of syphilis in the positive Wasserman. We did not mention that his heart was apparently normal except for that murmur and we had the development of pneumonia which was terminal. We felt he had a type III lobar pneumonia. He had syphilis and we felt he had a microscopic anemia. We thought there was probably malignancy somewhere.

Demonstration of X-ray films: Dr. Batchelder.

"Portable film of the chest was taken just shortly before he died and showed the dullness in the left chest which goes with the clinical findings of pneumonia. Films of the stomach were made. They don't indicate the large duodenum which was mentioned very well. That is larger than normal. The cap is larger than normal and this film here shows very large cap. It was reported as normal."

Demonstration of postmortem material: Dr. Clarke.

"At the time of postmortem the pneumonia involved all the lobes on the right. There is a sort of syphilitic aortitis. The interesting part is the stomach. Here is this duodenum which was considerably dilated—larger than normal. It was 4 cm. in diameter. We found no explanation for that. There was no restriction. Here is the pyloric ring and here just to the gastric side is a smooth, punched out ulcer 2 cm. in diameter. Old chronic ulcer. Grossly nothing that can be thought to be malignant and here sticking right out of it is a little artery. At the time of postmortem it showed up very nicely. The reason for presenting these two cases is quite evident. Two cases which clinically were much the same—marked secondary anemia with bleeding from the gut with the pathology much different.

SOCIETIES

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the

President, Dr. James W. Leech, at 8:50 P. M., May 1, 1933. The records of the last meeting were read and approved. The Standing Committee having approved their applications, the following were elected to membership: Anthony A. Iavazzo, John F. Streker.

The first subject of the evening was "Trichomonas Vaginalis." Dr. David Brodsky reported on an investigation carried out at three clinics, the Miriam Hospital, Providence Lying-In Hospital and the House of the Good Shepherd. This is a flagellate parasite 15 to 25 microns long and nearly as broad, recognized by their motility in a hanging drop. They are found in vaginal secretion and sometimes in urine. There is still a varying opinion as to their pathogenicity. They are usually associated with a foamy irritating discharge and bad odor. Treatments must be thorough to reach all parts of the vagina. Many medicaments are used. He showed two slides: one illustrating their morphology. Dr. Craig S. Houston reported cases from the Lying-In Hospital; not all had signs or symptoms. Dr. John F. Murphy reported on the quinine sulphate treatment. The discussion was entered into by Drs. Matteo, Ira H. Noyes, Langdon and Brodsky.

The second subject was "Clinical Significance of Pancreatic Disorders" by Dr. Anthony Bassler of New York city. He felt that the text book physiology of the pancreas is not accurate. The so-called proteolytic enzyme is not active as secreted, being only a pro-enzyme. There is probably no such thing as lipase as the lipolytic action can be accomplished simply by a weak alkaline solution. He showed slides illustrating by photomicrographs this action. Besides the Islands of Langerhans there is only one type of cell in the pancreas, and he did not feel that three different substances would be secreted in varying proportions.

He has studied the pancreas in diabetes mellitus, gall bladder disease and angina pectoris and by slides illustrated his graduated analytic tests by which the function can be registered in degrees from 0 to 10. In cholecystitis with a good pancreas function he advises immediate surgery but if the function is low the feeding of pancreatic tissue may restore normal conditions although symptoms may persist for six months. Many cases of diabetes can omit insulin as pancreas feeding can influence the type of sugar in the body. He also

feels that there is a circulatory hormone in the pancreas so that angina pectoris can be handled by pancreas feeding.

The paper was discussed by Drs. Frank Cummings, Burgess, who expressed considerable scepticism, A. T. Jones and Bassler.

The meeting adjourned at 10:55 P. M.

Attendance 138. Collation was served.

Respectfully submitted,

PETER PINEO CHASE, *Secretary*

NOTE

Dr. Louisa Paine Tingley has been re-elected Councilor of the Suffolk District Medical Society for 1933-1934.

NOTICE

AMERICAN MEDICAL ASSOCIATION
535 No. Dearborn St., Chicago, Ill.
Council on Medical Education and Hospitals

There is being widely distributed an announcement of the Illinois College of Physicians and Surgeons, 20 North Ashland Boulevard, Chicago, which includes the following statement:

"Courses offered and requirements for graduation are class 'A' requirements."

Inasmuch as the Council on Medical Education and Hospitals of the American Medical Association is the only body which has ever rated medical schools as class A, it is clearly implied that the above named school conforms to the standards prescribed by this Council. Such an inference, however, is wholly unwarranted. The above institution is conducted by a group of chiropractors and does not even remotely approach the standards of a class A medical school.

You are apprised of these facts in order that you may be able intelligently to advise those of your students who may be about to choose medicine as a career.

Very truly yours,

WILLIAM D. CUTTER.

BOOK REVIEWS

THE EXPECTANT MOTHER'S HANDBOOK, by Frederick C. Irving, A.B., M.D. Houghton Mifflin Company, Boston, 1932.

This book serves its object well to acquaint mothers with the facts of pregnancy and childbirth and to dispel certain untruths and superstitions. It further guards the young women, pregnant for the first time, against the ignorance of her well meaning relatives and friends. The author assembles his facts skilfully and presents them in a simple, direct form. The book can be highly recommended to expectant mothers. Dr. Irving leaves nothing to the imagination but answers all the questions authoritatively and clearly which have been presented to him by his patients during his years of practice. The thirteen chapters of the book are well chosen and the chapter on the biological aspects of pregnancy is of added interest. However, the psychological aspects of pregnancy do not appear to be sufficiently emphasized and a chapter added to ease the mental strain and exaggerated attitudes which pregnancy brings on would add materially to this very valuable book.

A PUBLICATION OF THE WHITE HOUSE CONFERENCE

HOSPITALS AND CHILD HEALTH

1. Hospitals and Dispensaries.
Clifford G. Grulee, M.D., Chairman.
2. Convalescent Care.
Adrian V. S. Lambert, M.D., Chairman.
3. Medical Social Service.
Ida M. Cannon, R.N., Chairman.

The Century Co., Publisher

This volume is divided into three sections as indicated above, the first dealing with available facilities for care of children in hospitals and dispensaries; the second, a survey of the problem of convalescent care for children suffering from acute and chronic diseases. The third deals with the purpose and aims of a medical social service, and shows the surprising lack of a sufficient number of such agencies.

This book contains a wealth of material in all three sections. The statistics and tables are interesting, but are numerous and to some will be tiresome, but on the whole it is well presented and should prove interesting to anyone interested or engaged in work in the fields discussed. It gives an insight into what is being done, how it is being done, and suggestions as to how conditions may be improved.